

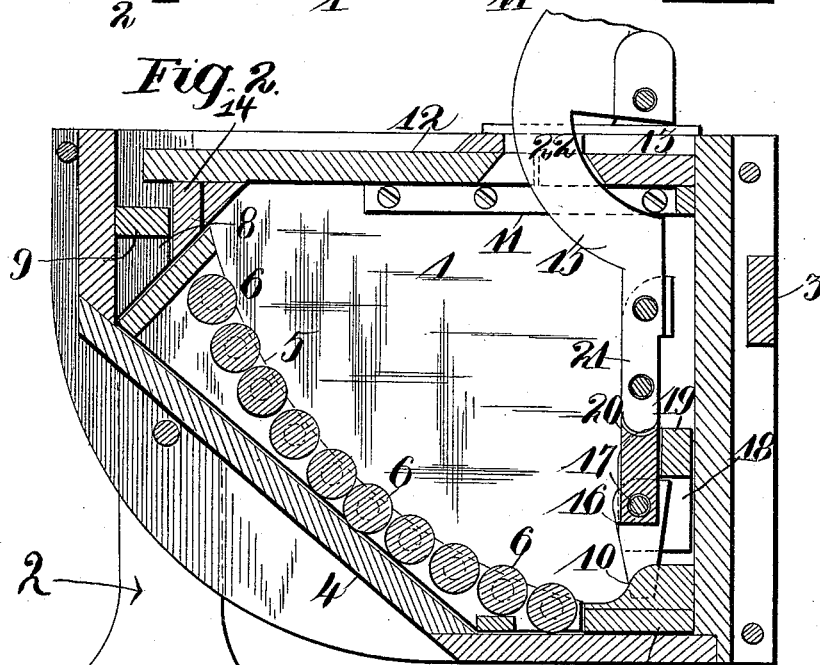
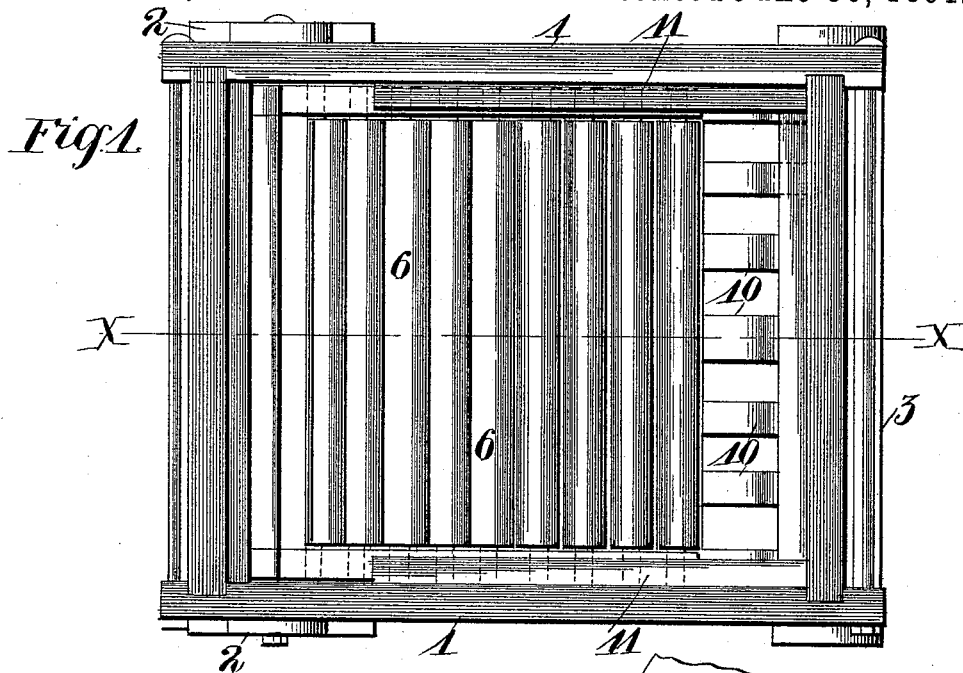
(No Model.)

2 Sheets—Sheet 1.

A. TAUBE.
WASHING MACHINE.

No. 454,933.

Patented June 30, 1891.



Witnesses

L. J. Waller.
Edward C. Longan

Inventor

Albert Taube.

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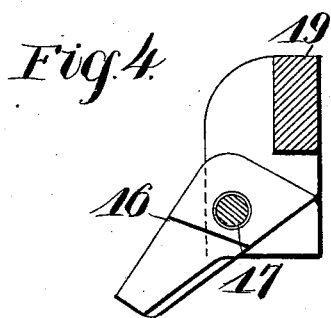
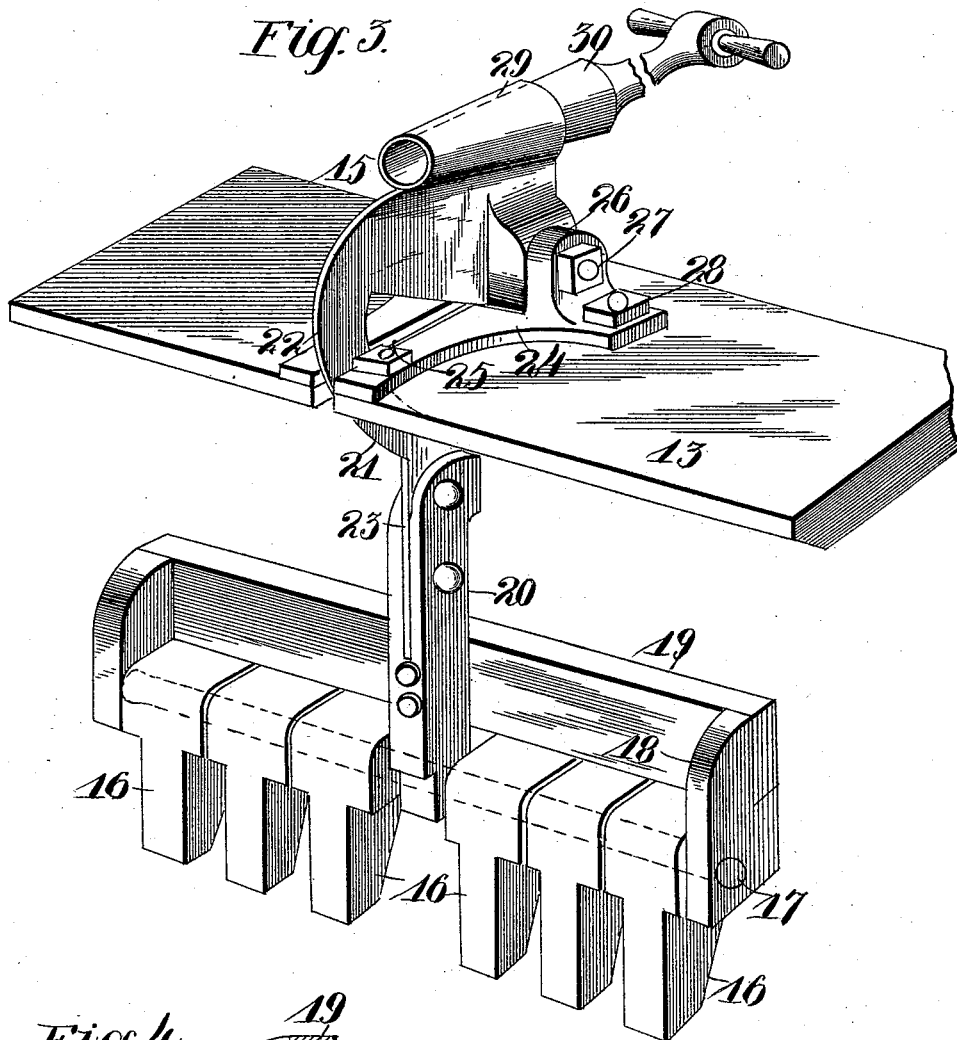
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UNITED STATES PATENT OFFICE.

ALBERT TAUBE, OF MORRISON, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 454,933, dated June 30, 1891.

Application filed March 11, 1891. Serial No. 384,625. (No model.)

To all whom it may concern:

Be it known that I, ALBERT TAUBE, of the city of Morrison, Gasconade county, State of Missouri, have invented certain new and useful Improvements in Washing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in washing-machines; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described, and designated in the claims.

In the drawings, Figure 1 is a top plan view of my invention with the lid or cover removed. Fig. 2 is a vertical section taken on the line $x x$ of Fig. 1. Fig. 3 is a perspective view of the rubbing device and means for operating the same, and Fig. 4 is a side elevation of one of the fingers.

Referring to the drawings, 1 indicates the walls of the suds-box, a part of the lower portion of which is rounded and cut away, as shown in Fig. 2.

2 indicates supporting-legs, the bases of which legs are flared out, as shown also in Fig. 2. Said legs are secured to the suds-box walls in any suitable and mechanical manner.

3 indicates a handle, by which the box may be manipulated.

4 indicates a wall, which passes across a portion of the box and answers as a support for the corrugated scrubbing device 5. Said scrubbing device is composed of a series of rollers 6, which rollers are mounted in a curvilinear frame-work, thereby presenting, when constructed, a corrugated curvilinear surface. The rollers may be revolvably mounted in the frame-work, as shown. The lower portion of the scrubbing device 5 is adapted to rest against a horizontal plate 7, which plate is secured in the bottom and in one corner of the suds-box 1. The upper portion of said scrubbing device 5 is adapted to fit against pieces

8. On the top of said pieces a horizontal cross-piece 9 is secured to prevent the clothes or whatever article is to be washed from falling in behind the scrubbing device. Secured to plate 7 are a series of ribs 10, which ribs prevent the clothes from getting in behind the rubbing-fingers.

11 indicates supporting-plates for the lid or

cover. The lid or cover is composed of two sections or parts 12 and 13. Part 12 is provided with a projecting cross-piece 14, which is adapted to rest on the upper end of the scrubbing device 5, and secured to part 13 is an additional scrubbing device 15, which I employ in carrying out my invention.

The additional scrubbing device is composed of a series of fingers 16, which fingers are mounted upon a transverse shaft 17, which shaft is mounted in a frame-work 18. The fingers are so arranged that they are capable of moving only in one direction—that is, only when the frame-work 18 goes in a backward direction—in which motion the fingers are permitted to assume a position as shown in Fig. 4. When the frame-work 18 goes in a forward direction, the top of the fingers will strike a cross-piece 19 of frame-work 18, which will consequently hold them and prevent them from moving as the frame-work 18 advances or moves forward. By the fingers being movable upon shaft 17, as the same goes in a backward direction, said motion being designed to permit the fingers to slide over any clothes that might come behind the fingers, the clothes are always left in front of said fingers.

20 indicates a bar which is rigidly secured to cross-piece 19 of the frame-work 18, and to said bar 20 operating-lever 21 is secured in any mechanical manner, preferably, however, as shown in the drawings. The operating-lever 21 consists of a semicircular piece 22 and an arm 23, the latter being secured to bar 20, as above stated. The semicircular piece 22 is mounted in bearing-plate 24. Said bearing-plate 24 is provided with a slot 25, in which semicircular piece 22 is free to move, and also with perforated ears 26, through which and through a suitable perforation made in semicircular piece 22 a bolt 27 is adapted to pass, pivotally securing the parts together. Bearing-plate 24 is secured to parts 13 of the lid by means of bolts 28, or in any other suitable and mechanical manner.

29 indicates a thimble which is formed on or secured to semicircular piece 22, in which thimble an operating-handle 30 is adapted to be inserted, as shown in Fig. 3.

Having fully described the mechanical parts of my invention, I will now proceed to describe the operation of the same.

The parts are substantially made and constructed as hereinbefore stated. The clothes or articles to be washed are placed in the suds box or chamber 1, and of course will rest upon the scrubbing device 5 and rollers 6; and if it is desired to scrub and cleanse the clothes the operator should bear down on the handle 30, and by the application of force thereon the frame-work 18, and consequently fingers 16, will be moved forward and all the clothes in front of the said frame-work 18 and finger 16 will be pressed in the same direction. The gravity of the wet clothes and the pressure produced upon the clothes by swinging the frame-work 18, resting on bolt 27 in plate 24, all combined, act on the clothes and produce a rubbing and squeezing action of the clothes between and on said rollers 6, and the clothes being forced up into the corner formed by the projecting cross-piece 14, attached to lid 12 and resting on the upper end of the scrubbing device 5, that also produces a squeezing and cleansing action upon the clothes. Now, the frame-work 18 and fingers 16 being heavier than the handle, the upper portion of lever 21, resting on bolt 27, will naturally go back by itself and raise the handle 30 in its old position without any other aid. The clothes at the moment frame-work 18 falls backward will also turn over and fall backward into the suds-chamber in front of the frame-work 18 and fingers 16. Of course by a repetition of this operation, accompanied with judgment and discretion, the clothes may be cleaned as desired. It may be noticed that only the down-pressure on handle 30 does all the work, thereby using one's own weight, which makes it very easy to operate the machine.

It may be observed by removing lid 12 that the scrubbing device 5 can be used as a wash-board and the suds-box as a wash-tub and wash the clothes by hand; also all the scrubbing mechanism may be removed from the box to clean and dry the same.

Having fully described my invention, what I claim is—

1. A washing-machine consisting of a suds-box 1, a curvilinear scrubbing device 5, located or adapted to be located in the same in functional position, a cross-bar 9, provided with uprights 8 on each end thereof, adapted to rest on the upper end of scrubbing device 5, a series of fingers mounted upon a suitable frame-work, and ribs 10 in the bottom of the box between which said fingers are adapted to rest, means for operating said fingers, thereby

causing the same to sweep over almost in contact with the corrugated curvilinear surface 5, substantially as set forth.

2. A washing-machine consisting of a suds-chamber 1, a corrugated curvilinear scrubbing device located or adapted to be located in functional operation in the same, a series of fingers 16, mounted in the frame-work 18, adapted to be moved only in one direction, a bar 20, secured to a cross-bar 19 of said frame-work 18, a semicircular piece or disk 22, provided with an arm 23 and thimble 29, pivotally mounted in piece 13 of the lid, and a suitable handle 30 adapted to be inserted in said thimble for operating the fingers, substantially as set forth.

3. In a washing-machine, the combination, with a suds-box, of an agitator consisting of a frame-work and means to operate the same, fingers pivoted in the lower end of the said frame-work, and a bar 19, abutting against the upper ends of said fingers at a distance from their pivotal points, whereby the fingers are permitted to swing in one direction only, substantially as described.

4. In a washing-machine, the combination, with a suds-box, of an agitator consisting of a frame-work, fingers pivoted therein, a bar 19, adapted to permit the movement of said fingers in one direction only, a semicircular lever-arm journaled in bearings on the cover, the lower end of said arm being secured to the frame-work carrying the fingers, and a handle adapted to be secured to said lever, substantially as described.

5. A washing-machine consisting of a suds-box 1, a corrugated curvilinear scrubbing device 5, provided with a series of rollers 6, said scrubbing device adapted to be located in functional position in the suds-box, a series of ribs 10, located in the same, a series of fingers 16, mounted in the frame-work 18, a bar 20, secured to cross-piece 19 of said frame-work, a lever 21, consisting of a semicircular piece or disk 22, an arm 23, the same being mechanically secured to bar 20, and said lever 21 additionally provided with a thimble 29, in which an operating-handle 30 may be inserted, and a bearing-plate 24, in which lever 21 may be mounted, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT TAUBE.

Witnesses:

CHARLES GUST,
VINZENT MUELLER.